

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU03/01409

## A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. <sup>7</sup>: C10L 9/02, 9/08

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC C10L 9/02, 9/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI IPC + KEYWORDS (mineral, deash, acid, alkaline, leach, wash, alkali)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| X         | US 4936045 A (WAUGH et al.) 26 June 1990<br>See entire document   | 46-51                 |
| X         | US4516980 A (WHEELLOCK) 14 May 1985<br>See entire document  | 46                    |
| A         | AU 606607 (76863/87) B (COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION) 14 February 1991<br>See entire document |                       |

☒ Further documents are listed in the continuation of Box C ☒ See patent family annex

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|---|--|
| * Special categories of cited documents:  |  |
| "A" document defining the general state of the art which is not considered to be of particular relevance  | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  |
| "E" earlier application or patent but published on or after the international filing date   | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone   |
| "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "O" document referring to an oral disclosure, use, exhibition or other means  | "&" document member of the same patent family  |
| "P" document published prior to the international filing date but later than the priority date claimed  |  |

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| Date of the actual completion of the international search<br>8 December 2003   | Date of mailing of the international search report<br>15 DEC 2003     |
| Name and mailing address of the ISA/AU<br>AUSTRALIAN PATENT OFFICE<br>PO BOX 200, WODEN ACT 2606, AUSTRALIA<br>E-mail address: pct@ipaustalia.gov.au<br>Facsimile No. (02) 6285 3929 | Authorized officer<br><br>R.P. ALLEN<br>Telephone No : (02) 6283 2134 |

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages  | Relevant to claim No. |
|-----------|---|-----------------------|
| A         | <p>WO 89/01963 A (COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION) 9 March 1989</p> <p>See entire document</p> | 36-37                 |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU03/01409

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in<br>Search Report |         | Patent Family Member |          |    |         |
|---|---------|----------------------|----------|----|---------|
| US  | 4936045 | AU                   | 72311/87 | DK | 612887  |
|   |         | FI                   | 884170   | NO | 874831  |
|   |         | WO                   | 8705621  | EP | 0302864 |
|   |         |                      |          | NZ | 219741  |
| US  | 4516980 |                      |          |    |         |
| AU  | 606607  | AU                   | 76863/87 |    |         |
| WO  | 8901963 | AU                   | 23803/88 | DK | 54590   |
|   |         | NO                   | 901006   | NZ | 226023  |
|   |         | US                   | 5192338  | EP | 0377616 |
|   |         |                      |          | NZ | 237406  |
|   |         |                      |          | ZA | 8806518 |
| END OF ANNEX                              |         |                      |          |    |         |